COZY ACRES AREA STRUCTURE PLAN

Bearisto & Associates | 6 YEARS
ENGINEERING & SURVEY

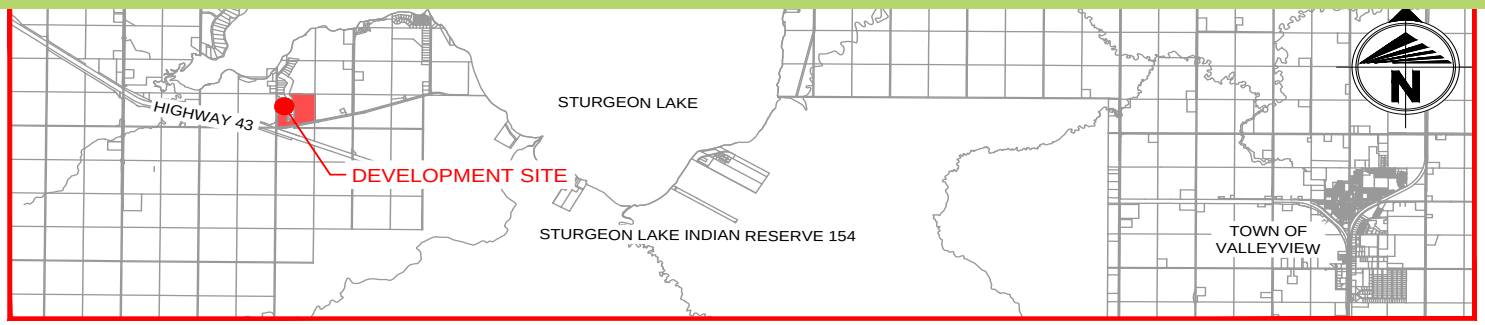
Contents

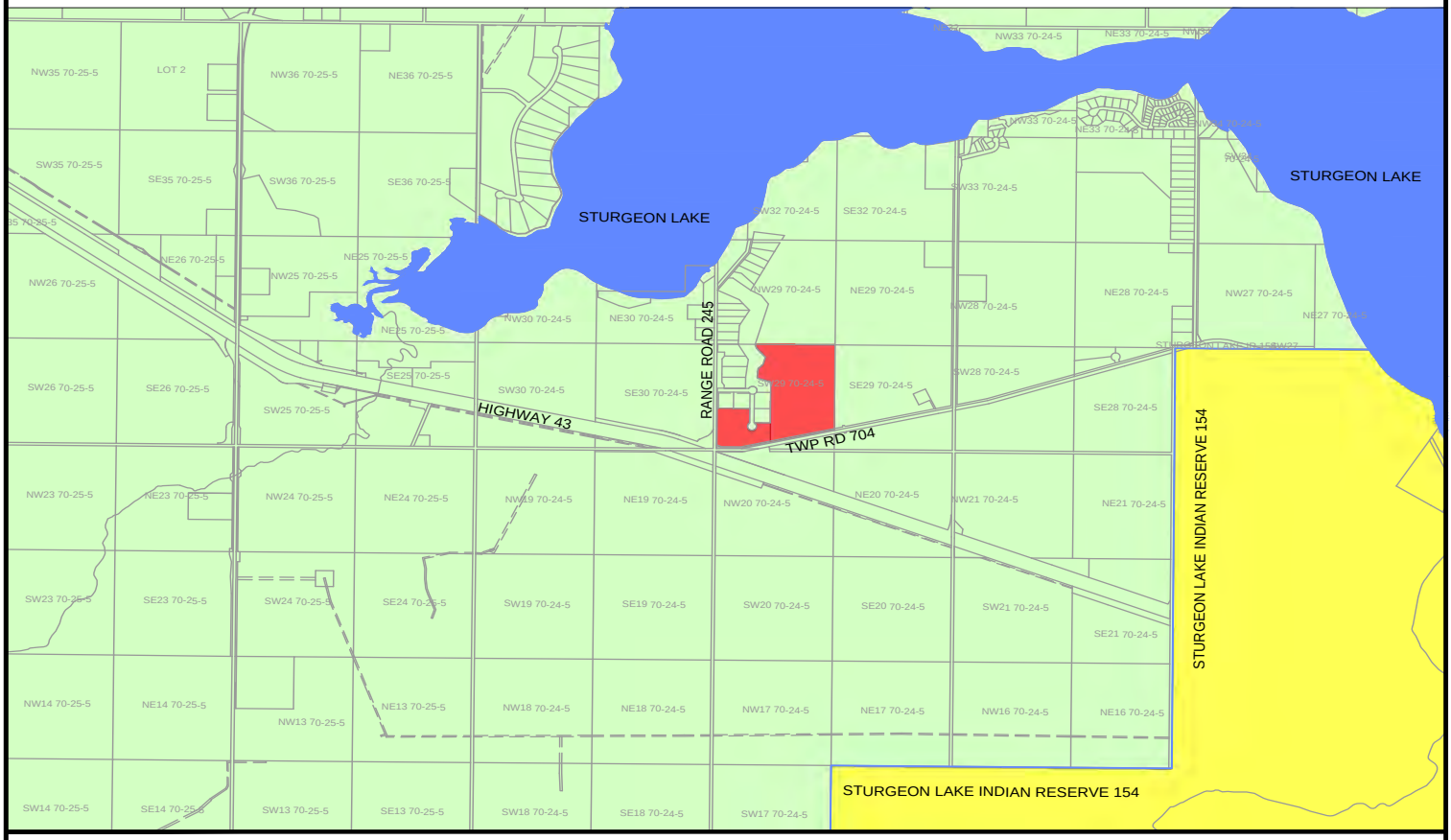
1.0 LOCATION & PURPOSE

The Minor Area Structure Plan applies to SW-29-70-24-W5M within the MD of Greenview No. 16, twelve miles west of the Town of Valleyview adjacent to Highway 43 (Map 1: Location Map). Studies were completed to address the development of phase one (1), which covers 8.35 hectares (20.64 acres) of the balance of this quarter.

This quarter section is located within the Sturgeon Lake Area Structure Plan (ASP) and must comply with the policies within the document. Policy 3.2.6 of the Sturgeon Lake ASP states, "In order to reduce the occurrence of piecemeal subdivision and to promote cluster development, all subdivisions exceeding first parcel out shall be subject to a minor ASP prepared in accordance with Greenview Policy 6001 (Minor Area Structure Plan). The approval of eight CR-3 parcels was done prior to the adoption of the Sturgeon Lake ASP. The current proposal of five additional country residential parcels requires a minor ASP.

The Minor Area Structure Plan will guide the next phases of the development (Maps 4 & 5: Future Development Phasing Concept) in an orderly and efficient manner. Phase one (1) shows current plans of development for the quarter section, and the balance is to remain used for agricultural purposes until further development is implemented. The plan provides a future development concept for the balance of the quarter as phase two (2) and phase (3) to be followed. The Minor Area Structure Plan contains provisions on environment, land use, roadways, servicing, and development staging. Future land use, subdivision, and development decisions shall be based on this Plan.





Map 1 - Location Map

Legend

Development Site

M.D. OF GREENVIEW NO. 16
MINOR AREA STRUCTURE PLAN

Scale: 1:50,000

April, 2023

2.0 Planning Context

Greenview has a variety of strategic and planning documents that provide direction in varying levels of detail. The Minor Area Structure Plan works together with all the planning documents and within the greater planning framework and the hierarchy described below to achieve the goals and objectives identified within the Minor Area Structure Plan and building towards Greenview's vision.

Municipal Development Plan (MDP)

Sturgeon Lake Area Structure Plan (SLASP)

Land Use Bylaw (LUB)

3.0 PHYSICAL & ENVIRONMENTAL FEATURES

3.1 Topography & Soils

The topography in this region consists of gently undulating lacustrine plain with low relief with hummocky uplands. The soil is fine textured within depressions of moderate file on upper slopes. The soils are moderately drained soils. Orthic and Gleyed Gray Luvisol are the dominant soil types found within the development area. With clearing and other human activities occurring on the quarter section with previous development and the initial phase of this plan it is likely that the soil structure has already been altered.

Soil may be impacted through soil compaction, soil loss, and loss of soil organic material. Topsoil quality may be degraded if it is mixed with underlying soils. All soils shall be stockpiled with their own kind, and wet or water influenced soils shall be stored separately.

Greenview supports land management practices that discourage sediment and nutrient loading into the Sturgeon Lake water system. These practices include:

a. The stripping of vegetation, grading, or other soil disturbance being done in a manner which will minimize soil erosion;
b. The retention and protection of natural vegetation whenever feasible;
c. Keeping the extent of the disturbed area and the duration of its exposure within practical limits. Suitable stabilization measures should be used to protect exposed areas during construction and be re-vegetated as soon as possible;
d. Managing site drainage so that surface runoff is maintained at pre- development rates subject to a storm-water management strategy prepared in accordance with Policy 8.2.8 of the SLASP;
e. Maintaining a naturally vegetated buffer along the shore of the lake and watercourses in accordance with Policy 5.2.17 of the SLASP.

3.2 Air Quality, Noise, and Climate

The Development site shown in Map 3 Development Concept is surrounded by residential properties and forested areas with Sturgeon Lake to the north. Multiple campgrounds and provincial parks are in the area. The main source of chemical which could potentially degrade air quality comes from traffic associated with Highway 43. Most noise within the area is also generated from traffic associated with Highway 43.

A formal Biophysical Impact Assessment has not been conducted to assess the noise, air quality, and climate for this development, however, as this is a proposed residential development it is not anticipated to increase noise or air quality in the area. For further conservation, a vegetated buffer of 15 metres adjacent to the township and range roads will be required to mitigate noise disturbance from the adjacent highway.

No permanent impacts to noise, air quality, and climate are expected due to the development of the Plan area and associated infrastructure needed for the development. Climate change impacts are not expected and the additional five parcels for residential use will not result in a large increase in traffic.

3.3 Water Courses & Wetlands

The land surrounding the development drains toward the wetlands and creek to the northeast. As mentioned, Sturgeon Lake is located to the north of the development. The creek ranges from 200 to 350m away from the development location. Through aerial photos it is determined the creek is impacted by extensive beaver activity by the number of beaver dams, therefore it must be considered that the path of the creek will change as they are constructed and removed. The development falls outside of the high-water mark of the closest waterbodies and no impact is expected to the watercourse.

At the time of development, houses shall be set at an appropriate elevation to mitigate any potential flood risk. Given the distance between the subdivision and the closest waterbody being approximately 300 metres away and having a 30m increase in elevation from the creek to properties it is unlikely that the project will impact any waterbodies. The area around the homes shall be graded in such a manner to promote positive drainage at a minimum of 2% for at least 5m from the foundations.

A Biophysical Report was conducted to identify wetlands within the Plan Area (Refer to Figure B: Wetlands). A swamp was noted approximately 100m east of the development, and the land surrounding the project drains toward the wetlands and creek to the northeast. Most of the wetlands are riparian swamps associated with the unnamed tributary of Sturgeon Lake which is the creek to the northeast located 200m - 350m east of Lot 9 and can be identified in Figure A. The ATCO Electric Easement goes through this swamp and has already been cleared.

At the time of development, a silt fence along the east boundary of Lot 9 will be required during construction to prevent impact to the neighbouring wetlands and to ensure that any water from the work areas does not enter the wetlands.

3.4 Vegetation

The development is expected to impact natural vegetation. Lawn grass will replace some of the natural vegetation. It is expected that some of the trees will also be removed to accommodate the residential use. The Biophysical Impact Assessment suggests that a vegetated buffer of 15 metres adjacent to the township and range roads be placed to increase vegetation and mitigate noise disturbance.

3.5 Biodiversity

The development is located within the B5 nesting zone (Alberta Wetland Mitigation Directive, 2018.), and the birding window extends from late April to late August. During this period, a nest search must be performed before any removal of vegetation can occur. A search of the Alberta Conservation Information Management System (ACIMS) for the ATS location determined no important Bird Areas were noted in the development area. No sensitive or non-sensitive elements are found within the Plan area. The closest biological species identified is 4.5km to the east of the proposed subdivisions, and it was a sighting for a bean-spore rim lichen which is restricted to poplar bark (Lichens of North America, 2001).

Additional Country Residential development is not expected to have significant impacts on biophysical features in the area. The application of appropriate mitigation will limit impacts of the development. Sensitive features should be avoided to reduce the loss of environmental features. The impact on Species at Risk is expected to be limited. The development has been disturbed previously and contains tracks and trails throughout.

3.6 Historical Resources

A historical site was identified 500m north of the development and classified with a Historical Resources value of 5a. An area which has been designated as 5a has unidentified/historic resources. This area has been previously disturbed and contains the Cozy Cove Campground; however, consultation with the Government of Alberta Cultural and Tourism: Historic Resources Management division and/ or a qualified practitioner is recommended prior to the commencement of construction.

The potential project impacts and effects to Historic Resources is summed in the table below.

Project Impact	Potential Effect	Criteria	
Project Development (permanent)	Loss of historical resources	**Direction**	**Negative**
		Geographical Extent	Sub-Regional
		Magnitude	Minor
		Duration	Long-term
		Probability	Rare
		Reversibility	Non-reversible

Figure A6:
Historic Wetlands - 2012
SW 29-70-24 W5M

Legend
Waterbodies
Watercourse
Wetlands 2012
Marsh
Swamp
Open Water
Ephemeral

Figure A: Historic Wetlands

Figure B: Wetlands

Cozy Acres

Minor Area Structure Plan

4.0 DEVELOPMENT CONCEPT

4.1 Land Uses

There are currently eight parcels subdivided from the quarter section that are zoned Country Residential – Two (within Greenview's Land Use Bylaw 18-800). The balance of the quarter section remains as Agricultural One. The existing land uses adjacent to the development predominantly are Agricultural One and Country Residential – Two however, within the general area there is also Country Residential – Three (CR-3) and Recreation zoned lands (shown on Map 2: Existing Land Uses).

The development is a continuation of existing residential uses within the immediate area. This development supports Greenview's initiative to promote clustered development and is compatible with the surrounding uses. Therefore, the development is not expected to create any land use conflicts within the area.

4.2 Internal Subdivision Road

The internal roadway design is intended to discourage through traffic. The use of cul-de-sacs will minimize traffic volumes and promote safety and privacy, thus a higher quality of life for the residents. Cul-de-sacs typically attract concurrent residents, therefore limiting overall traffic.

The internal subdivision road will be constructed to municipal standards. The utilization of the existing road will minimize the need for extensive earthworks and all finished road grades will be in accordance with municipal standards. All residential parcels located within SW-29-70-24-W5M shall only access Range Road 245 via the internal subdivision road. Approaches directly to the adjacent Township Road 704 and Range Road 245 will not be permitted. Additionally, a PUL will be required at the time of subdivision and located between lots 10 & 11 for emergency access. This location for a PUL is appropriate as contour lines are perpendicular to the lot line which will allow the PUL to straddle the property line without a great deal of side hill excavation. There is a large elevation change from the south to the north end of the lots, therefore it would be required for the PUL to incorporate a drainage swale inclusive with an emergency access route. If the remainder of the quarter section is ever to be developed in the future, there is a road network with a connection to Township Road 704 shown on the Maps along with the future development and phases.

4.3 Servicing

Ground water supply will be used for domestic purposes. Wells will be developed in compliance with the Alberta Environment standards. For this purpose, the Geotechnical Study has verified that there are sufficient local ground water sources for the proposed development, without affecting any other ground water uses in the general area. Through the Geotechnical assessment, the subsurface conditions indicated that the development of the site is feasible, and further recommendations can be found in the full report.

Based on the Geotechnical report, the surficial soils vary from loam to clay loam. The groundwater depth measured from standpipes installed in March 2022 indicates the groundwater table may be as high as 1.68m below ground surface, basements should be restricted within the development (no subsurface development). Based on this soil and groundwater data, the suitability for PSTS varies from Limited to Moderate. Possible PSTS soil-based treatments will be treatment fields and treatment mounds. Greenview shall require all developments to provide holding tanks or composting toliets for sewage disposal for new residential development or subdivsion located within the Plan Area.

4.4 Municipal Reserve & Environmental Protection

Pursuant to the Municipal Government Act, the Municipal Planning Commission, as the Subdivision Authority, may require 10% of the gross area of the subject lands be dedicated as Municipal Reserve, or require the payment of cash-in-lieu of the land that would have been dedicated as Reserve. As a condition of subdivision within the Plan Area, it is intended that the Municipal Reserve be required by way of cash-in-lieu. Environmental Reserve may be required by the municipality at time of subdivision at the discretion of the Subdivision Authority. It can be seen on the maps that a total of 6.91 hectares (17.07 acres) has been dedicated to ER in Phase 2 & 3 of development for the quarter section.

In order to protect the community from environmental hazard, future subdivision and development shall incorporate fire preparedness measures, such as provincial FireSmart guidelines.

4.5 Site Grading & Drainage

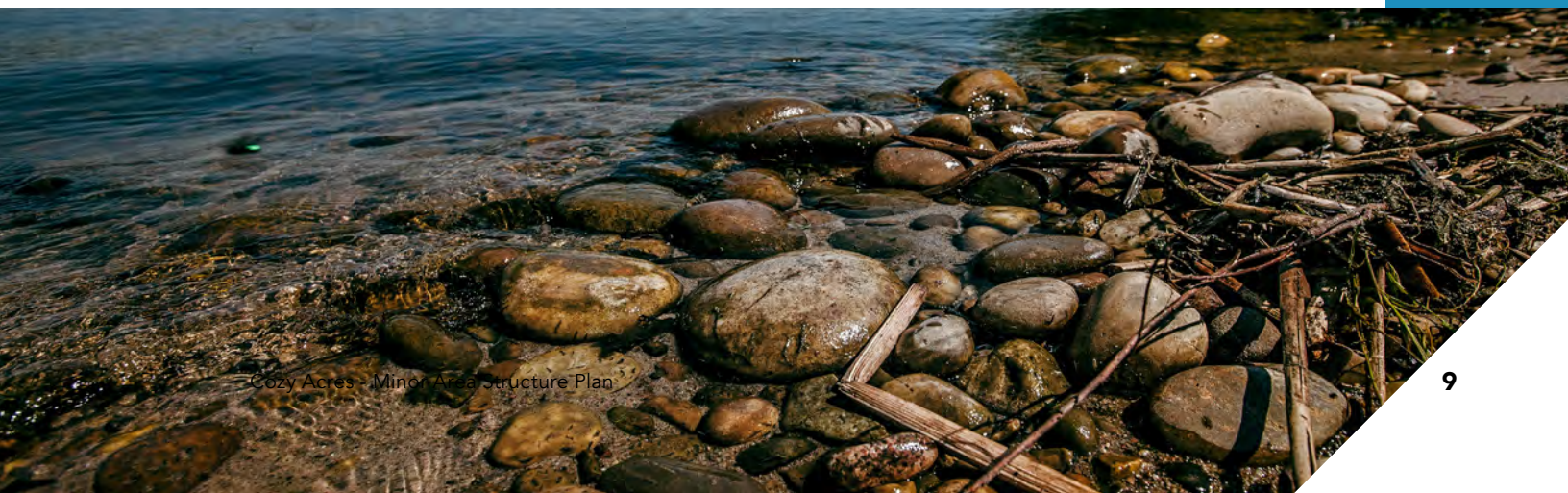
The existing topography of the area includes a significant hill in the southwest corner of the quarter section with some low-lying areas in the northeast. The south half of the quarter section overall has good natural slope, and the general drainage pattern is from the south to the north, draining towards the wetlands and creek in the northeast. There are several small open waterbodies located within the wetland and creek to the northeast.

Surface water drainage in the area of the development shall be addressed at the time of development through a public drainage system along the roadways following the natural topography of the site. This can likely be accomplished by using the proposed road ditches to convey surface water. The requirements for any drainage easements within the subdivision development should be reviewed at the time of subdivision.

Structures within this development shall be developed such that the finished grade around the buildings, exterior slabs or any structure should promote positive drainage away from the structure footprint. A minimum grade of 2% away from the buildings is recommended for hard landscaped areas, while a minimum grade in the range of 3% to 10% is recommended for soft landscaped areas.

Though due to cumulative density exceeding four (4) lots a Minor Area Structure Plan is required, the provision of a stormwater management facility will not be necessary. However, drainage easements may be registered on parcels to protect natural drainage patterns.

Franchise utilities, ie. power, gas, will be provided by the respective utility companies at time of subdivision.

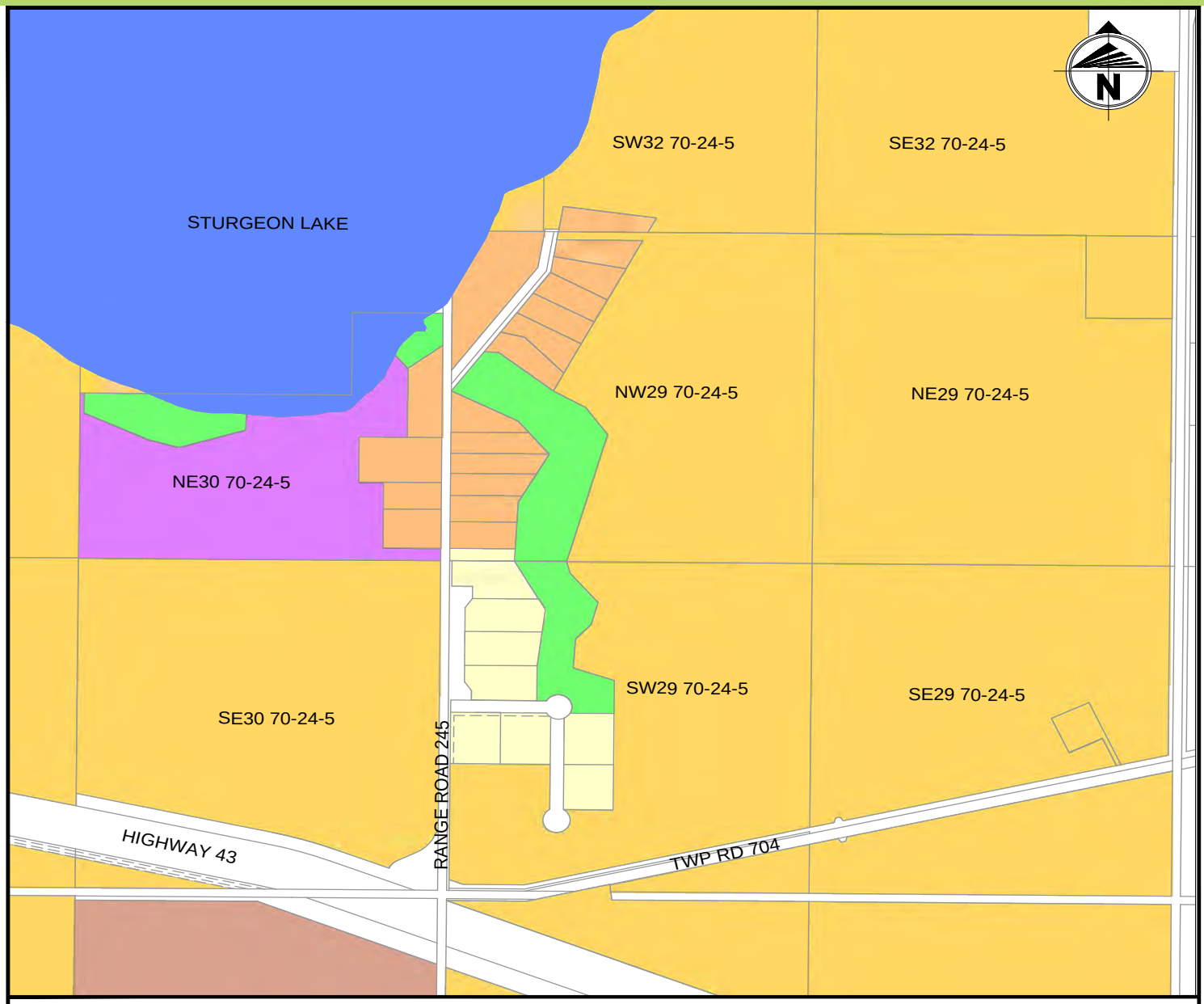


5.0 CONCLUSION

As illustrated in Maps 4 and 5 Future Development Phasing Concept, there are three stages of the development planned to commence on the quarter section. The proposed timing of development in the Plan area will be dependent on market conditions.

Upon adoption, this Minor Area Structure Plan shall become the policy document of Greenview to manage development within SW-29-70-24-W5M identified as Cozy Acres. To meet Policy 10.3.6 of the Municipal Development Plan "As a condition of subdivision or development permit approval, Greenview may require the developer to enter into a development agreement with respect to the provision of all infrastructure required to service the site". Development proposals that do not meet the policies, guidelines and development maps contained in this Plan require a Plan amendment to be adopted by Council.

The Minor Area Structure Plan and supporting reports have demonstrated the Plan Area can support the development of additional country residential parcels.



Map 2 - Existing Land Uses

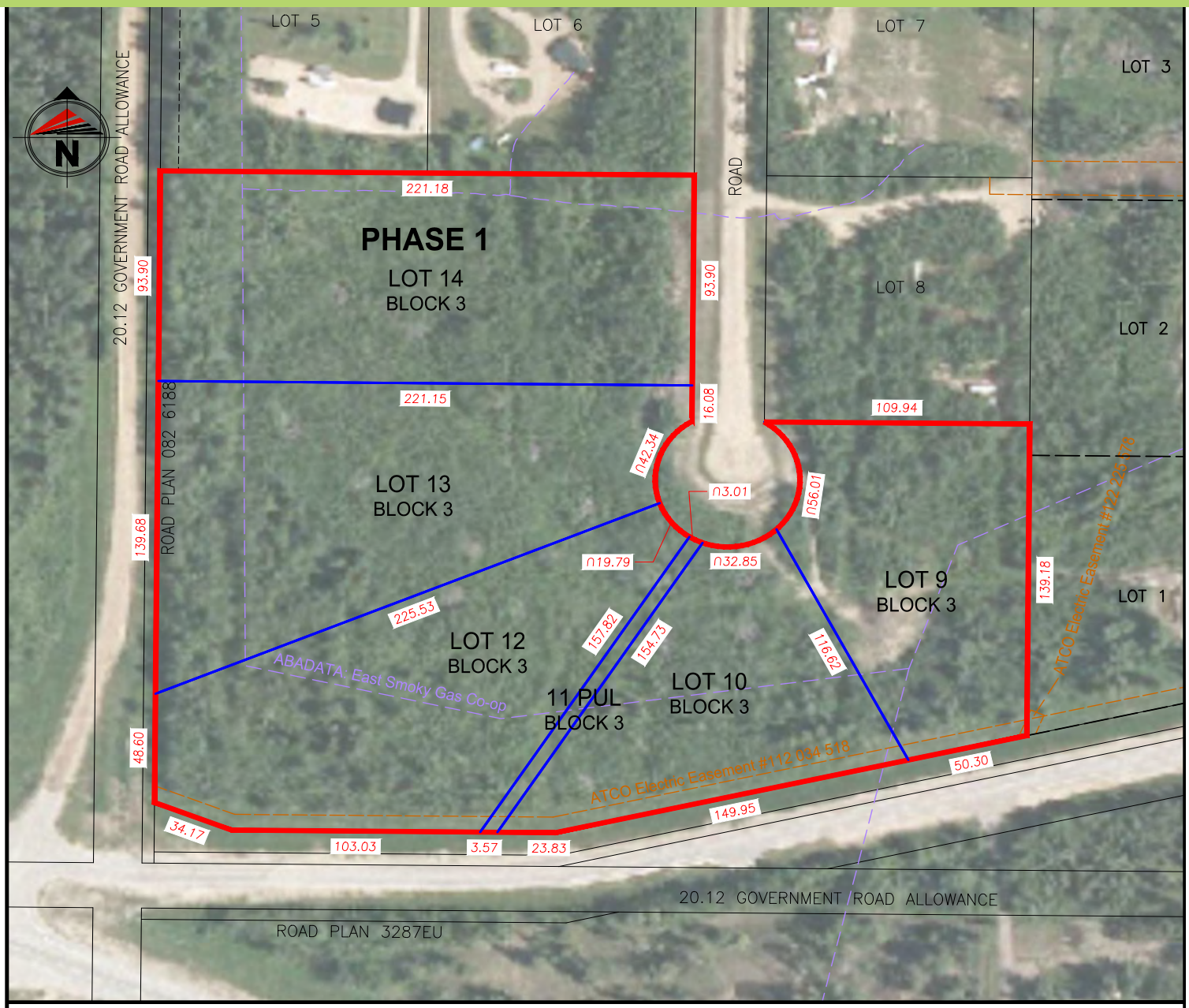
Legend

- Agricultural （AG-1）
- Country Residential （CR-2）
- Country Residential （CR-3）
- Environmental Reserve （ER）
- Recreational
- Crown Land

M.D. OF GREENVIEW NO. 16
MINOR AREA STRUCTURE PLAN

Scale: N.T.S.

April, 2023



Map 3 - Development Concept (Cadastre)

MUNICIPAL DISTRICT OF GREENVIEW NO. 16
TENTATIVE PLAN
SHOWING PROPOSED SUBDIVISION OF
PART OF THE
S.W. 1/4 SEC. 29, TWP. 70, RGE. 24, W.5M.

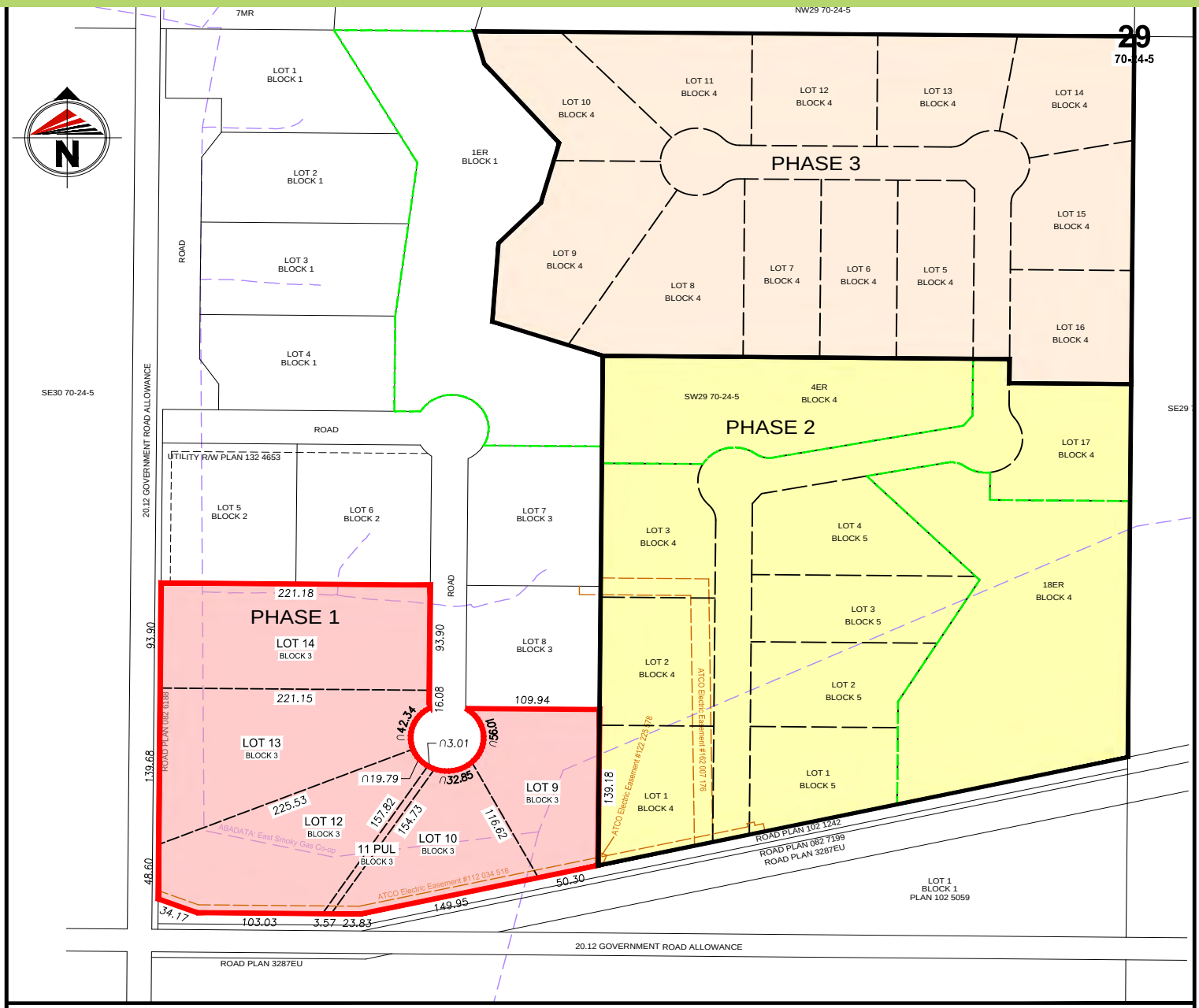
LAND DEALT WITH BY THIS
PLAN IS SHOWN OUTLINED THUS: ———
AND CONTAINS: 8.35 HECTARES (20.64 ACRES)

INSTRUMENTS AFFECTING LAND (NOT NECESSARILY SHOWN ON THE PLAN)	
Reg. No.	Name
792 302 448	Utility R/W - East Smoky Gas Co-op Ltd.
112 034 518	Caveat - ATCO Electric Ltd.
122 225 578	Caveat - ATCO Electric Ltd.
162 007 176	Caveat - ATCO Electric Ltd.

M.D. OF GREENVIEW NO. 16
MINOR AREA STRUCTURE PLAN

Scale: 1:2,500

April, 2023



Map 4 - Future Development Phasing Concept (Cadastre)

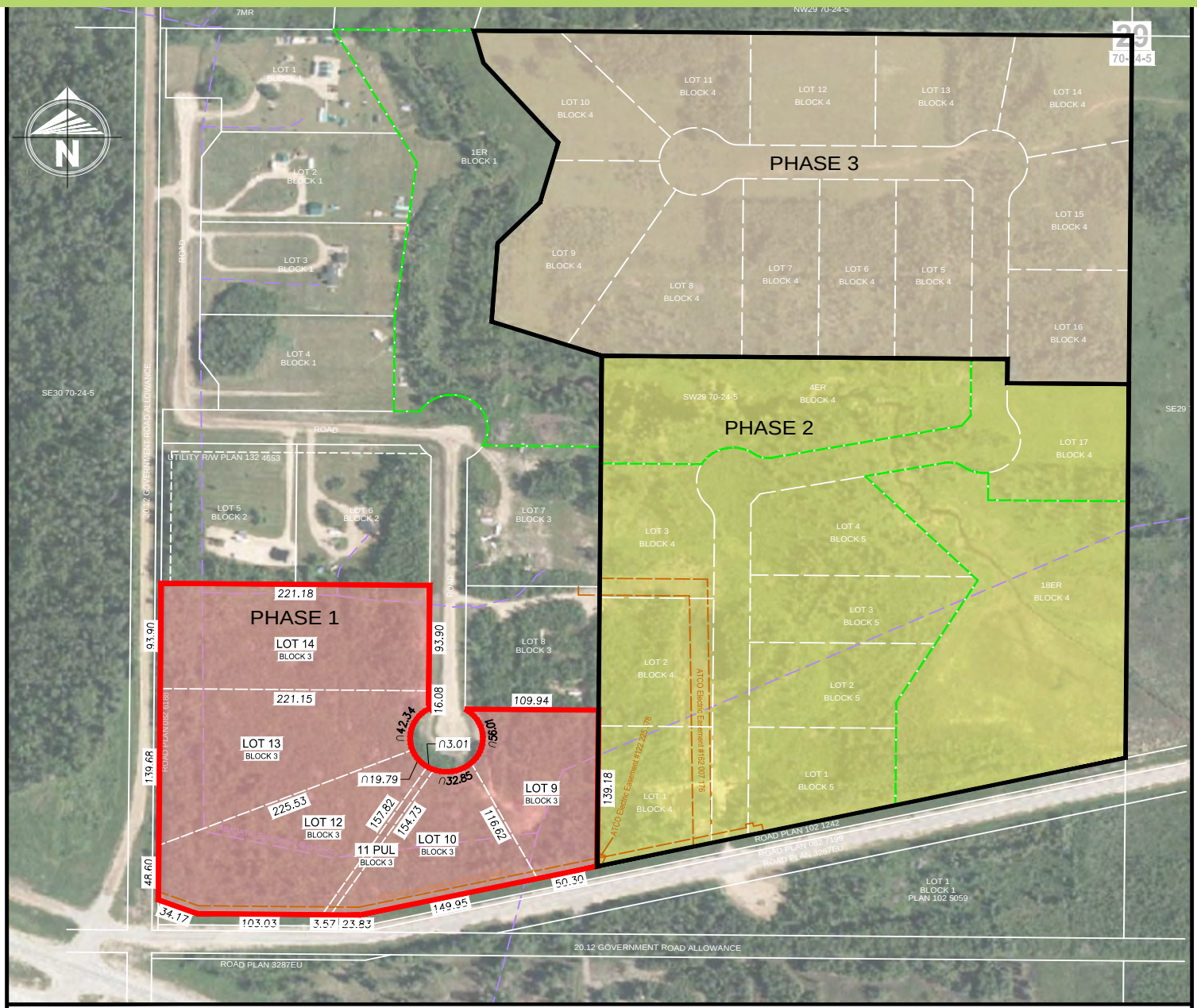
MUNICIPAL DISTRICT OF GREENVIEW NO. 16
TENTATIVE PLAN
SHOWING PROPOSED SUBDIVISION OF
PART OF THE
S.W. 1/4 SEC. 29, TWP. 70, RGE. 24, W.5M.

INSTRUMENTS AFFECTING LAND (NOT NECESSARILY SHOWN ON THE PLAN)	
Reg. No.	Name
792 302 448	Utility R/W - East Smoky Gas Co-op Ltd.
112 034 518	Caveat - ATCO Electric Ltd.
122 225 578	Caveat - ATCO Electric Ltd.
162 007 176	Caveat - ATCO Electric Ltd.

M.D. OF GREENVIEW NO. 16
MINOR AREA STRUCTURE PLAN

Scale: 1:5,000

April, 2023



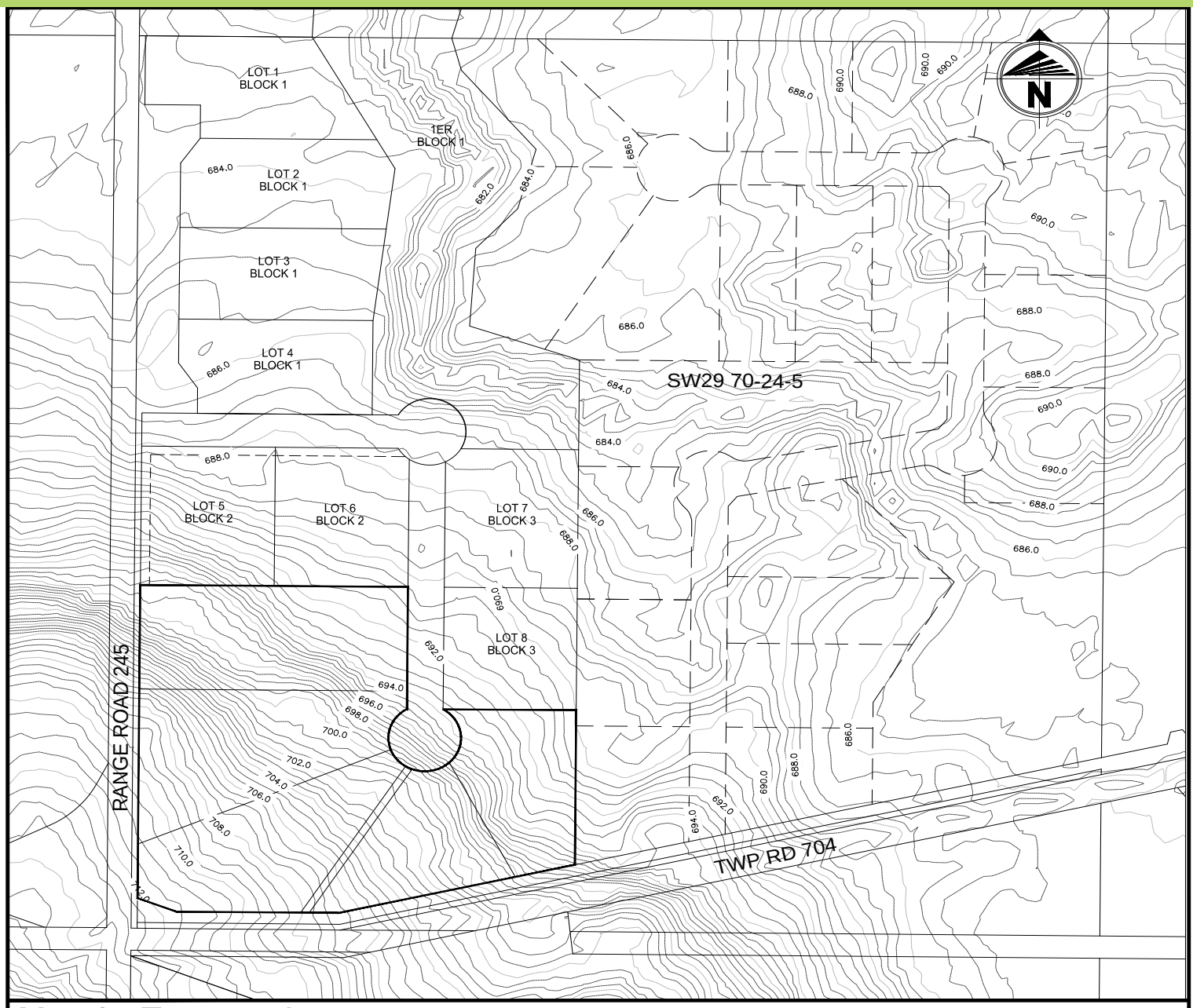
Map 5 - Future Development Phasing Concept (Aerial)

*NO FIELD SURVEY WAS UNDERTAKEN TO PRODUCE THIS PLAN

M.D. OF GREENVIEW NO. 16
MINOR AREA STRUCTURE PLAN

Scale: 1:5,000

April, 2023



Map 6 - Topography

M.D. OF GREENVIEW NO. 16
MINOR AREA STRUCTURE PLAN

Scale: 1:5,000

April, 2023